



AF/1/11
ZPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Stefan FIETKAU

Application No. 09/875,294

Confirmation No. 3721

Filed: June 7, 2001

Art Unit: 3721

Examiner: Michelle Lopez

Atty. Docket No.: 31512-172404

For: METHOD OF AND APPARATUS
FOR APPLYING ADHESIVE TO
RUNNING WEBS OF PAPER AND
THE LIKE

Customer No.

26694

PATENT TRADEMARK OFFICE

APPEAL BRIEF

Sir:

This is an appeal to the Board of Patent Appeals and Interferences from the decision in the Office Action of October 20, 2004. A Request for Consideration was filed on March 17, 2005 and having received an Advisory Action dated April 12, 2005, Appellants timely filed a Notice of Appeal and a Request for an Extension of Time on April 20, 2005.

Appellant submits herewith an Appeal Brief, pursuant to 37 C.F.R. §41.37(c). Please charge the required appeal fee of \$500, and any additional fees, or credit any refunds, to our deposit account no. 22-0261.

06/15/2005 SZEWDIE1 00000069 220261 09875294

01 FC:1402 500.00 DA

(1) REAL PARTY IN INTEREST

The Assignee of this Application, and thus the real party of interest in this Appeal, is Hauni Maschinenbau Aktiengesellschaft, having a business address at Kurt-A. Körber-Chaussee 8-32, Hamburg, Germany D-21033.

(2) RELATED APPEAL AND INTERFERENCES

No appeal or interferences is known to Appellant or the Appellant's legal representative for Assignee which would directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) STATUS OF CLAIMS

The Application was filed with claims 1-23.

Claims 1-18 were elected with traverse in Response to the Restriction requirement on February 28, 2003, and claim 1 was amended at the time of the election.

Claims 4, 10, 13, 17, and 18 were amended in the Amendment filed August 4, 2003 and claims 1-3 and 9 were cancelled. Claims 19-24 were withdrawn.

Claims 4, 5, 10, 17, 18, and 24 were amended in the Amendment submitted with the Request for Continued Examination, filed December 31, 2003. Claim 13 was cancelled and claim 25 was added by this same Amendment.

Claims 4-8, 10-12, 14-18, 24, and 25 are pending in the application, with claim 25 being the independent claim. Claims 1-3, 9, 13, and 19-23 have been cancelled.

Claims 4-8, 10-12, 14-18, 24, and 25 are finally rejected.

Claims 4-8, 10-12, 14-18, 24, and 25 are appealed and set forth in the Appendix to this Brief.

(4) STATUS OF AMENDMENTS

Following the October 20, 2005 final Office Action, an Examiner Interview was conducted on May 20, 2004. An agreement was not reached. Subsequently, a Request for Reconsideration was filed on March 17, 2005. The Examiner issued an Advisory Action on April 12, 2005 indicating that the Request for Consideration has been considered but did not place the application into condition for allowance.

(5) SUMMARY OF THE CLAIMED INVENTION

As shown in Figures 1-4, the invention of independent claim 25 is an improved method of applying a flowable substance to a web of wrapping material for rod-shaped products. A drawback of conventional methods has been the penetration of the flowable substance through the web which can cause contamination during the manufacturing process and damage the product. The present invention overcomes these problems by its method comprising the steps of: (1) confining the web (27) to movement along a predetermined path (p. 9, para 19 of substitute specification); (2) directing at least one stream of flowable substance in an at least partially non-linear manner toward one side of the web (see, e.g. Figure 4), wherein said directing step includes the utilization of a nozzle (50) having an orifice (52) which discharges the at least one stream of flowable substance, and includes rotating the stream, wherein said rotating step includes directing against the stream at least one flow of a fluid substance (p. 10, para 22); and (3) advancing the web (27) lengthwise along said path at a variable speed (p. 10, para 24).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection for review are as follows:

A. Whether claims 4-8, 10-12, 14-18, 24 and 25 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 3,974,007 to Greve (hereinafter referred to as "Greve") in view of U.S. Patent 5,194,115 to Ramspeck et al (hereinafter referred to as "Ramspeck")?

B. Whether claims 14-16 are properly rejected under 35 U.S.C. § 103 as being unpatentable over Greve in view of Ramspeck and further in view of U.S. Patent 4,987,854 to Hall (hereinafter referred to as "Hall")

(7) ARGUMENT

A. Whether claims 4-8, 10-12, 17-18, 24 and 25 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Greve in view of Ramspeck.

1. Argument for claims 4-8, 10-12, 14-18, 24 and 25

The Examiner's Position

According to the final Office Action dated October 20, 2004, the Examiner asserts that "Greve [allegedly] discloses the invention substantially as claimed, including a method of applying a flowable substance toward one side of the web as described in column 5, lines 35-40 (as in claim 25), advancing the web lengthwise along said path at a variable speed by a variable speed electric motor (16)" (page 2 of Final Office Action) The Examiner then states that through Greve does not show a method of directing a flowable substance in a least a

partially non-linear manner toward one side of the web to vary the direction of propagation of the flowable substance, Ramspeck teaches this method. (Id) It is the Examiner's position that Figure 1 of Ramspeck teaches the claimed "wherein said directing step includes the utilization of a nozzle 14 having an orifice 45 which discharges the at least one stream of flowable substance, and includes rotating the stream, wherein said rotating step includes directing against the stream at least one flow of fluid substance for the purpose of generating consistent adhesive loops and spirals in bonding applications." (p. 2-3 of Final Office Action) Therefore, according to the Examiner, "it would have been obvious to one of ordinary skill in the art to incorporate the adhesive application system of Ramspeck into the rod shape making process of Greve to achieve improved adhesive consistency in the adhesive application step of Greve." (page 3 of Final Office Action) Appellant disagrees.

Greve Does Not Discloses Advancing the Web at a Variable Speed as Required by the Present Claims.

The Examiner assumes, erroneously, that because Greve indirectly discloses variable motor 16 that drives endless band 48, that the web 46 is advanced at a variable speed. On the contrary, web 46 is advanced by rolls 45a (see, e.g., Greve col 5, lines 34-36) which are not connected to motor 16 (see, e.g., Greve Fig. 1).

In Greve, the motor 16 drives advancing roll 11 and tensioning roll 12. (Greve, col. 4, lines 31-42) Advancing rolls 11 are driven at a variable speed by a regulating unit 91, and tension rolls 12 are driven at a constant speed. Id. Thus, the ability to advance the filter material at a variable speed is imparted by regulating unit 91 and not motor 16. Any variable

speed imparted by rolls 11 is eliminated at rolls 12, which is driven at a constant speed and is located downstream from rolls 11. Accordingly, nowhere does Greve disclose motor 16 as producing a variable speed downstream of rolls 12 where web 46 enters the rod-forming apparatus.

The Examiner states in the Advisory Action that "Greve shows a web 46 being advanced by an endless band 48, wherein the endless band 48 is driven at a variable speed by motor 16 as shown in col. 4; 37-42." Appellants disagree. Column 5, lines 31-40 state that an endless band 48 is driven by motor 16, and that the web is driven by rolls 45a. Thus, rolls 45a control the speed of the web, and not motor 16. Greve does not disclose that rolls 45a operate at variable speed; therefore Greve does not disclose advancing the web 46 at a variable speed as required by Appellant's independent claim 25 and dependent claims 4-8, 10-12, 14-18, and 24.

The specification of Greve does not explicitly disclose "advancing the web lengthwise . . . at a variable speed" (present claim 25). Thus a rejection under 35 U.S.C. § 103(a) is not appropriate. The Examiner appears to be using the Greve reference in a § 102 context by saying that because the motor 16 drives endless band 48 at a variable speed, the web 46 may also be advanced at a variable speed. However, this is not the test of a 103(a) rejection. Under 35 U.S.C. §103, the Greve reference must explicitly disclose what is written in the present claims. Greve fails to do this. Therefore, the rejection of the present claims under 35 U.S.C. § 103(a) cannot stand.

Ramspeck Does Not Remedy the Defects of Greve

Ramspeck is directed to a loop producing apparatus for depositing a stripe of adhesive on a substrate 5 that is moved beneath the nozzle 14 in the direction of arrow A (see Figure 1 of Ramspeck). Nowhere does Ramspeck disclose, teach or suggest that the substrate is a moving web of material, nor does Ramspeck disclose teach or suggest advancing the substrate at a variable speed along a predetermined path. Thus, Ramspeck cannot provide a teaching to modify the web of Greve to be advanced at a variable speed, as required by claim 25. Consequently, one of ordinary skill in the art would not have been motivated to modify the method taught by Greve to advance the web *at a variable speed*.

There is No Motivation to Modify Greve with Ramspeck

In addition to the fact that the modification of Greve with Ramspeck would not result in the presently claimed invention, there is no motivation for such a modification. The disclosed uses for the loop producing apparatus of Ramspeck relate to diaper manufacture. (See col. 1, lines 32-35.) As the problems to be solved in the art of tobacco manufacture differ greatly from those in the diaper industry, Appellant's use of the a nozzle similar to that described in Ramspeck for the purposes of tobacco product manufacturing constitutes an inventive step. Further, diaper method steps cannot render obvious tobacco product manufacture steps. There is no teaching in either Greve or Ramspeck that suggests a combination. The motivation to combine references cannot be Appellant's own disclosure. For all these reasons, it is impermissible hindsight bias for the Examiner to assert that the combination of Greve and Ramspeck would have been obvious to one of skill in the art.

2. Argument for claim 10

Dependent claims 10-12 are patentable for their novel features and because they depend from allowable claim 25. Specifically, claim 10 is directed to the method of claim 25, further comprising "the steps of pumping the flowable substance from a source to the orifice [52] of the nozzle [50] at a variable pressure, and providing an . . . open and shut closure for the orifice" (See page 10, paragraph 25 of Appellant's substitute specification).

In the Final Office Action, the Examiner states that Ramspeck teaches pumping the flowable substance at a variable pressure and providing an open and shut closure (See Final Office Action, page 4). Appellant disagrees. Nowhere in Ramspeck is there any discussion of variable pressure. In fact, Ramspeck discloses the inclusion of a "baffle or diffusing means in the plenum for eliminating variations in the air flow" in the nozzle attachment (Ramspeck, col 2, lines 6-9). Such disclosure leads to the conclusion that this means, by providing for constant air flow, also provides for constant air pressure. Thus, not only does Ramspeck fail to disclose pumping the flowable substance at a variable pressure, it actually teaches away from this concept. Therefore, Ramspeck does not render claim 10 obvious. Further, Ramspeck does not explicitly disclose an open and shut closure, but discloses only a valve 24 and valve seat 25 to shut off flow of adhesive from an adhesive chamber 26 through the nozzle (Ramspeck, col. 2, lines 55-59). That is, Ramspeck does not disclose a valve for open and shut closure, as required by present claim 10. Ramspeck depicts the valve 24 and valve seat 25 in Figure 3, but there is no further description. In the absence of the description of a mechanism of valve opening and closing, Ramspeck cannot render obvious claim 10.

The specification of Ramspeck recites no structure that would provide the ability to pump a flowable substance at a variable pressure. Figure 2 of Appellant's specification discloses system 68 where the quantity of adhesive administered is dependent upon the speed of the web 27, as measured by sensor 64. This system allows for the provision of variable pressure as required by the varying speed of the web. One of ordinary skill in the art would not be motivated to apply variable pressure to the invention of Ramspeck. Therefore, the pumping of flowable adhesive at a variable pressure, in response to variable advancement of the web, as required by present claim 10, is not rendered obvious. Accordingly, reversal of the rejection is requested.

3. Argument for claim 11

Claim 11 depends from method claim 10 and recites the additional step of "raising the pressure of the flowable substance to a predetermined value prior to the opening of the orifice [52]" during the pumping step (see page 10, paragraph 23 of substitute specification). That is, the variable pressure of claim 10 must be raised prior to the opening of the orifice valve 92. It is the Examiner's position that Ramspeck teaches the pumping step, including raising the pressure of the flowable system to a predetermined value prior to opening the orifice, because this would be inherent in the system (see Final Office Action, page 4). However, in the absence of any disclosure or provision for pumping the flowable substance at a variable pressure, it would certainly not be obvious to raise the variable pressure of the flowable substance to a predetermined value prior to the opening of the orifice, as required by claim 11. Accordingly, reversal of the rejection of claim 11 under 35 U.S.C. § 103(a) is requested.

4. Argument for claim 12

Claim 12 depends from claim 11 and further specifies that the opening of the orifice 52 can occur approximately 0.5 seconds after raising the pressure of the flowable substance to the predetermined value (see page 10, paragraph 23 of substitute specification). According to the Examiner, this is disclosed by the "modified method of Greve" (see Office Action, page 4). As stated above, neither Greve nor Rampeck discloses pumping the flowable substance at variable pressure, as required by present claim 12. Therefore, the "modified method of Greve" cannot further disclose the step of opening the orifice approximately 0.5 second after raising the pressure. Accordingly, the rejection under 35 U.S.C. § 103(a) is inappropriate and must be withdrawn.

5. Argument for claim 24

The Examiner is of the opinion that Ramspeck teaches the flow directing step of causing the fluid substance to flow along a pre-selected path prior to and during issuance of the stream of the nozzle 52, as disclosed at page 12, paragraph 10, in Appellant's specification . (See Final Office Action, page 3.) Appellant disagrees. The Examiner does not point to any specific area of the Ramspeck specification to support her position, and in the absence of such support, the rejection of claim 24 cannot stand.

B. Whether claims 14-16 are properly rejected under 35 U.S.C. § 103 as being unpatentable over Greve in view of Ramspeck and further in view of U.S. Patent 4,987,854 to Hall (hereinafter referred to as "Hall").

1. Argument for claim 14

The Examiner's Position

The Examiner argues that "Hall [supposedly] teaches the well known method of discharging the flowable substance from the orifice at a rate which is a function of the speed of advancement of the web along said predetermined path, as described in column 2, lines 1-18." (Final Office Action, page 5.) Appellant disagrees. Present claim 14 is disclosed, for example, at page 10, paragraph 24 of Appellant's specification.

Hall does not teach advancing a web at a variable speed and further does not teach discharging a flowable substance at rate that is a function of the speed of the web.

Hall is directed to an apparatus for gas-aided dispensing of liquid materials that deposits liquid material (e.g., sealant) onto a workpiece (e.g., automotive doors) as shown in Figures 5, 6A and 6B. Hall is not concerned with moving a web of material along a predetermined path. To the contrary, Hall relates to maintaining a uniform bead of fluid material in robotic applications. Hall teaches varying current "to maintain a uniform bead of fluid material even during relatively rapid changes in relative speed between the dispenser and the workpiece onto which material is dispensed." (Id.) Hall teaches a driving signal generated by the controller of the robot carrying the fluid dispenser so that a uniform bead of material is maintained even during rapid changes in

relative speed between the dispenser and the workpiece. Consequently, Hall does not provide motivation to one of ordinary skill in the art to advance a web along a predetermined path at a variable speed as required by present claim 14 and cannot render the claim unpatentable.

Regarding the portion of specification cited by the Examiner (Hall, col. 2 lines 1-18), this disclosure cannot be said to teach movement of the workpiece at a variable speed. Rather, Hall teaches exactly what is stated: maintaining the uniform flow of bead during changes in speed between the dispenser and the workpiece. As Hall does not teach movement of the workpiece at a variable speed, Hall does not teach advancing a web at a variable speed. Further, Hall does not teach discharging a flowable substance at a rate that is a function of the speed of the variably advanced web, as required by claim 14.

There is no motivation to modify Greve and Rampeck with the Hall reference

As argued above, there is first no motivation to modify Greve with Ramspeck, and any combination/modification of these references would not result in the presently claimed invention. (See *Section A1, supra.*) Even if such a motivation and combination existed, there would be no motivation to further modify this combination (of Greve and Ramspeck) with the Hall reference. Hall relates to maintaining a uniform bead of fluid material in robotic applications. Particularly, Hall is directed to dispensing systems where both a liquid and gas are dispensed. Greve is directed to the production of tobacco filter rod sections by treating a tow with adhesive. Ramspeck is directed to the application of adhesive in diaper manufacture. There is nothing in the disclosure of either references that teaches the modification of a Greve and Ramspeck combination by Hall. Moreover, the Office Action does not set forth reasons as to why one of

skill in the art would be motivated to modify the a combination of Greve and Ramspeck with the Hall reference. Regardless, the modification would not result in the present claims because none of the three references disclose advancing a web at a variable speed, as required by claim 14.

Appellant's claims are directed to a method of applying a flowable substance to a web of wrapping material for rod-shaped products. (See, for example, present claim 1.) Hall is directed to a system for applying sealant along the interior periphery of car doors, wherein liquid material is discharged from the nozzle of a dispensing gun manipulated by a robot. (See Hall, col. 1, lines 44-47; col 3 lines 39-41.) It is unclear how a person of skill in the art would have applied the technology of the Hall reference (the use of robot manipulated dispensing guns to apply sealant to car doors) to modify either the Greve reference (manufacture of tobacco rods) or Ramspeck (applying adhesive for manufacture of diapers). It is even less clear how Hall could be applied to a modification of the Greve and Ramspeck references to arrive at the present invention.

As discussed above, the problems to be solved in the different technical fields vary greatly, and therefore it is not obvious for one of skill in the art to apply the teachings of Ramspeck to Greve. Similarly, the problems in the art of car manufacture are vastly different from the problems of tobacco product manufacture. Appellant's device remedies the problem of too much adhesive applied to the web, which results in a certain amount of defective product, as well as potential health hazards for the user. The Hall device is not capable of addressing this issue, as the application of sealant to car doors utilizes a large amount of product. The goal of the Hall reference is to provide uniform conformation of the a deposit of liquid material, so that there are no gaps in the line of application, as illustrated in Figure 6B. (see Hall, column 3, lines 48-51; col 4, lines 19-23). Thus, Hall seeks to address a problem where too little flowable

substance is provided, whereas Appellant's invention does precisely the opposite - addresses the problem of too much flowable substance. There is no motivation, in either the references themselves, or in the problems to be solved in the art, that suggests the combination set forth by the Examiner. To insist upon such a combination is impermissible hindsight bias. Accordingly, the rejection under 35 U.S.C. § 103(a) should be withdrawn.

2. Argument for claim 15

Regarding claim 15, the Examiner again asserts that Hall, col. 2, lines 1-18 discloses "varying the rate of discharge of flowable substance proportionately with variations in of speed in the web . . . for the purpose of consistent distribution of fluid as in column 1, lines 15-25. (Final Office Action, page 5. See also Appellant's specification at pages 10-11, paragraphs 24-25 for disclosure of present claim 15.) As argued above, col 2, lines 1-18 of Hall does not teach movement of the workpiece (i.e. advancing a the web of claim 15) at a variable speed; here Hall teaches maintaining the flow of a uniform bead during changes in speed between the dispenser and the workpiece. Further, col. 1 lines 15-25 discloses the desirability of controlling flow of fluid from a dispenser "to account for changes between the dispenser and a workpiece onto which the fluid is being dispensed." (Final Office Action, page 5) The Examiner further asserts that it would have been obvious to one of skill in the art "to provide the modified method of Greve with the well-known concept of adjusting flow rate relative to work-piece speeds" and that "Hall states that it is well known in the art to vary flow rates with workpiece speeds" (Final Office Action, page 5). Appellant believes that the Examiner misses the point. The step of discharging the rate of the flowable substance proportionally with a web that is being advanced at a variable speed, as required by claim 15, is not disclosed by Hall, nor is it disclosed by Greve. Therefore, the rejection under 35 U.S.C. 103(a) is not appropriate and should be withdrawn

3. Argument for Claim 16

The Examiner asserts that the Greve and Hall references disclose the subject matter of

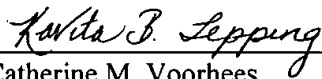
present claim 16, "except for explicitly showing wherein said step of discharging the flowable substance includes discharging the flowable substance from the orifice at a rate of at least two grams per minute" (Final Office Action, pp. 5-6). In the Examiner's opinion, "it [allegedly] would have been obvious to one of ordinary skill in the art . . . to select a flow range of at least 2 grams per minute, since . . . discovering the optimum or workable ranges involves only routine skill in the art." (Id.) However, neither Greve nor Hall disclose any ranges for discharging a flowable substance. In the absence of such disclosure, it is not clear how one of skill in the art would arrive at the rate of "at least 2 grams per minutes" as required by claim 16 (see present specification at pages 24-25, paragraph 54). Therefore, the rejection of claim 16 under 35 U.S.C. § 103(a) should be withdrawn.

(8) CONCLUSION

For the foregoing reasons, it is respectfully submitted that claims 4-8, 10-12, 14-18, 24 and 25 are patentable over Greve and Ramspeck. Accordingly, the Examiner's rejection of these claims should be reversed.

Respectfully submitted,

Date: June 14, 2005


Catherine M. Voorhees
Registration No. 33,074
Kavita B. Lepping
Registration No. 54,262
Venable LLP
P.O. Box 34385
Washington, D.C. 20004-9998
Tel.: (202) 344-4000
Telefax: (202) 344-8300

CMV:KBL
DC2/654455

(9) CLAIM APPENDIX

Claims 1-3. (canceled).

Claim 4. (previously presented): The method of claim 25, wherein the fluid substance is air.

Claim 5. (previously presented): The method of claim 25, wherein said stream directing step includes imparting to the stream the shape of a hollow cone having an apex in line with the orifice of the nozzle.

Claim 6. (original): The method of claim 5, wherein said flow directing step includes causing the flow to impinge upon the stream at an acute angle.

Claim 7. (original): The method of claim 6, wherein said angle at least approximates 30°.

Claim 8. (original): The method of claim 6, wherein said flow is substantially tangential to said cone.

Claim 9. (canceled).

Claim 10. (previously presented): The method of claim 25, further comprising the steps of pumping the flowable substance from a source to the orifice of the nozzle at a variable pressure and providing an open-and-shut closure for the orifice.

Claim 11. (original): The method of claim 10, wherein said pumping step includes raising the pressure of the flowable substance to a predetermined value prior to opening of the orifice.

Claim 12. (original): The method of claim 11, wherein the opening of the orifice takes place approximately 0.5 second subsequent to raising of the pressure of flowable substance to said

predetermined value.

Claim 13. (canceled).

Claim 14. (previously presented): The method of claim 25, further comprising the step of discharging the flowable substance from the orifice at a rate which is a function of the speed of advancement of the web along said predetermined path.

Claim 15. (original): The method of claim 14, wherein said step of discharging the flowable substance includes varying the rate of discharge of flowable substance proportionally with variations of the speed of the web.

Claim 16. (original): The method of claim 14, wherein said step of discharging the flowable substance includes discharging the flowable substance from the orifice at a rate of at least 2 grams per minute.

Claim 17. (previously presented): The method of claim 25, wherein the non-linear layer is a spiral layer.

Claim 18. (previously presented): The method of claim 25, wherein the flowable substance is an adhesive.

Claims 19-23 (canceled).

Claim 24. (previously presented): The method of claim 25, wherein said flow directing step includes causing the fluid substance to flow along a preselected path prior to and during issuance of the stream from the orifice of the nozzle.

Claim 25. (previously presented) A method of applying a flowable substance to a web of wrapping material for rod-shaped products, comprising the steps of:

confining the web to movement along a predetermined path;

directing at least one stream of flowable substance in an at least partially non-linear manner toward one side of the web, wherein said directing step includes the utilization of a nozzle having an orifice which discharges the at least one stream of flowable substance, and includes rotating the stream, wherein said rotating step includes directing against the stream at least one flow of a fluid substance; and

advancing the web lengthwise along said path at a variable speed.

FEE TRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$) 500

Complete if Known

Application Number 09/875,294
Filing Date June 7, 2001
First Named Inventor Stefan FIETKAU
Examiner Name Michelle Lopez
Group / Art Unit 3721
Attorney Docket No. 31512-172404

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:
- Deposit Account Number 22-0261
- Deposit Account Name Venable LLP
- ☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17
☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☐ Payment Enclosed:

☐ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Fee Code	Entity Fee(\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
1011	300	2011	150	Utility filing fee	
1012	200	2012	100	Design filing fee	
1013	200	2013	100	Plant filing fee	
1014	300	2014	150	Reissue filing fee	
1005	200	2005	100	Provisional filing fee	
1081	250	2081	125	Utility App. Size Fee	
1082	250	2082	125	Design App Size Fee	
1083	250	2083	125	Plant App. Size Fee	
1084	250	2084	125	Reissue App Size Fee	
1085	250	2085	125	Prov. App Size Fee	

SUBTOTAL (1)

(\$0)

2. EXTRA CLAIM FEES

Total Claims		-20 **	=	Extra Claims	X	Fee from below	=	Fee Paid
Independent Claims		-3**	=		X		=	
Multiple Dependent					X		=	

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description
1202	50	2202	25	Claims in excess of 20
1201	200	2201	100	Independent claims in excess of 3
1203	360	2204	180	Multiple dependent claim, if not paid
1204	200	2204	100	** Reissue independent claims in excess of three
1205	50	2205	25	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

Fee Code	Lrg Ent Fee (\$)	Fee Code	Sm Ent Fee (\$)	Fee Description	Fee Paid
1111	500	2111	250	Utility Search Fee	
1112	100	2112	50	Design Search Fee	
1113	300	2113	150	Plant Search Fee	
1114	500	2114	250	Reissue Search Fee	
1311	200	2311	100	Utility Examination Fee	
1312	130	2312	65	Design Examination Fee	
1313	160	2313	80	Plant Examination Fee	
1314	600	2314	300	Reissue Examination Fee	
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	120	2215	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1,020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	\$500
1403	1,000	2403	500	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	500	2452	250	Petition to revive - unavoidable	
1453	1,500	2453	750	Petition to revive - unintentional	
1501	1,400	2501	700	Utility issue fee (or reissue)	
1502	800	2502	400	Design issue fee	
1503	1,100	2503	550	Plant issue fee	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	790	2809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$500)

SUBMITTED BY Complete (if applicable)

Name (Print/Type) Kavita B. Lepping Reg No. Attorney/Agent 54,262 Telephone 202-344-4000
Signature *Kavita B. Lepping* Date June 14, 2005